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MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			VU, JAKE MINH	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/062,561  
Filing Date: February 05, 2002  
Appellant(s): CHRISTOPHER ET AL.

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Dennis P. Clarke  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 22, 2005 appealing from the  
Office action mailed March 31, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claims 1, 3-6, 8-11, 13-17, and 19-22. Claims 2, 7, 12, and 18 have been canceled by Applicant's Amendment filed on August 19, 2004.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect with the filing date of the Final Office Action. No amendment after final has been filed subsequent to the final Office Action filed on March 31, 2005.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

### **(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Claims 1, 3-6, 8-11, 13-17, and 19-22 stand finally rejected under 103(a) as unpatentable over the combination of CHANG et al (US 3,950,266), TODD (US 5,079,016), and BANK et al (US 6,306,450).

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct. However, claims 2, 7, 12, and 18 have been canceled by Applicant's Amendment filed on August 19, 2004.

### **(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 8-11, 13-17, and 19-22 remain rejected under 35 U.S.C. under 35 U.S.C. 103(a) as being unpatentable over the combination of Chang et al (US 3,950,266), Todd et al (US 5,079,016) and Bank et al (US 6,306,450).

The modified claims are directed to a composition consisting essentially of a fragrance compound, said compound containing a flavor compound sensitive to radiation and natural antioxidant from extract of Labiatae or rosemary or other ingredient thereof. The claims are also drawn toward the antioxidant ingredient of rosemary extracts as carnosic acid or rosmarinic acid or mixture thereof, the fragrance compound is citral or borneol and the claims are also directed toward a method of stabilizing fragrance or flavor composition using effective amount of fragrance compound, flavor compound or mixture thereof and natural antioxidant in a composition wherein there is suitable carrier (e.g. food, cosmetic product, prepared food; meat etc).

Chang et al (Patent '266) discloses natural antioxidant stabilizing flavor composition and preventing deterioration of oils and fats in foods products (abstract, col 12, lin 15-20 and table 7). The natural antioxidant is from the herb rosemary extract (col 4, lin 25-30), generally known in the art to be from the Labiatae family.

Patent '266 did not disclose the use of citral as the fragrance compound or the use of manufactured food product, cosmetic or prepared food, seasoning or flavoring blend as the carrier in addition to oils.

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Todd et al teaches (Patent '016) discloses effective color stabilization in carotenoid compositions-- color-stabilized annatto, tomato, carrot compositions and Labiatae or tea extract (source of natural antioxidant) are employed; the teaching in Patent '016 reads on applicant's claims in that as in claim 1, Patent '016 discloses fragrance or flavor composition with natural antioxidant and enhancement of color stabilization (abstract, col 16, lin 40-65). Patent '016 discloses Labiatae antioxidant (col 3, lin 67; col 5, lin 25; col 7, lin 15 and col 12, lin 35-55).

Patent '016 discloses the stabilization of tomato juice by rosemary extract (col 13, lin 5-40). Patent '016 does not disclose the specific chemical anti-oxidant ingredient in the rosemary extract as rosmarinic acid.

Bank et al (Patent '450) discloses the prevention of the development of off-flavor and off odors in storage-stable, citrus compositions by plant extract (Labiatae family) – (abstract and col 5, lin 1-5, col 9, lin 5-35). Patent '450 discloses the natural antioxidant as obtained from rosemary extract to be rosmarinic acid (col 5, lin 55, col 7, lin 15-20 and col 8, lin 25-30). Patent '450 discloses citral as the flavoring agent in the composition (abstract, col 4, lin 30-35). Patent '450 a method of stabilizing flavor composition using plant extract citral (col 8, lin 65 continuing to col 9, lin 1-20), from Labiatae plant family (col 5, lin 1-10).

One of ordinary skill in the art would be motivated to prepare an anti-oxidant fragrance or flavor composition wherein the color deterioration is stabilized by the use of a natural antioxidant from rosemary extract in sufficient amount as described in prior art cited (Patent '266, Patent '016 or Patent '450). One of ordinary skill would expect to

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obtain fragrance or food composition with appealing characteristics such as longer shelf or storage life without unpleasant rancid, off-flavor, off-odor (and loss of taste in case of foods) due to antioxidant action of the ingredients from the rosemary extract. Therefore the invention as a whole would have been prima facie obvious to one of ordinary skill at the time the invention was made.

### **(10) Response to Argument**

#### **1<sup>st</sup> Argument:**

Applicant argues that CHANG does not mention color-stabilization and is limited to the treatment of oils and fats wherein color-stabilization is usually not a factor. Additionally, Applicant argues that the materials disclosed by CHANG are fats and oils that do not contain color components sensitive to electromagnetic.

The Examiner finds these arguments hypocritical and unpersuasive, because Applicant's claims are directed to a fragrance/flavor compound wherein color-stabilization also is usually not a factor. Additionally, Applicant assumes without scientific evidence that the materials disclosed by CHANG do not contain color components sensitive to electromagnetic. The Examiner believes this unscientific assumption is false, because the fat on aged red meat turns from white to a yellow-brownish color without the use of preservatives. Unless scientifically proven otherwise, the materials disclosed by CHANG do have color components sensitive to electromagnetic and should not be limited to non-color stabilization.

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2<sup>nd</sup> Argument:

Applicant argues that whereas CHANG describes compositions comprising similar compositions, the present claims are drawn to compositions stabilized against color degradation, a utility not disclosed by CHANG.

The Examiner finds this argument unpersuasive, because of the MPEP § 2122 – Discussion of Utility in the Prior Art, which states, “In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound, but no utility need be disclosed by the reference.” *In re Schoenwald*, 964 F.2d 1122, 22 USPQ2d 1671 (Fed. Cir. 1992). Thus, the color degradation utility is not required to be disclosed in CHANG.

Additionally, CHANG is a 103(a) obviousness rejection that is applied in view of TODD. TODD teaches that color-stabilization can be attained with the use of rosemary extracts.

3<sup>rd</sup> Argument:

Applicant argues that since CHANG does not specify the amount of the stabilizer necessary to guard against color degradation, it cannot be said to disclose or suggest the claimed composition.

The Examiner finds this argument unpersuasive, because the prior arts disclosed that color degradations and off-flavor odors are caused by an oxidation chemical reaction. CHANG disclosed that the protective mechanism by the rosemary extracts is to inhibit oxidation (col. 5, line 4-9). CHANG's composition protects the oil and fat from



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oxidative degradation by adding as little as 0.005% to 0.02% of rosemary extracts (col. 6, line 7-12). The 0.005% to 0.02% of rosemary extracts is equal to 50 – 200 ppm. Applicant disclosed in the Specification to use about 50 – 2000 ppm of rosemary extract (specification, pg. 8). CHANG disclosed similar range of stabilizers as Applicant to prevent oxidative degradation. Thus, CHANG does specify the amount of the stabilizer necessary to guard against color degradation.

4<sup>th</sup> Argument:

Applicant calls attention to the decision in *Ex parte Skuballa* and alleges that the BPAI acknowledges that the phrase “effective amount” is a critical limitation in a claim having a definite meaning, which cannot simply be ignored. Additionally, Applicant argues that CHANG does not recognize the color stabilization effect stated in the claims and does not disclose the “effective amounts” for producing this result.

The Examiner believes Applicant has misinterpreted *Ex parte Skuballa*. *Ex parte Skuballa* dealt with 35 USC 112 indefinite rejection, where the BPAI finds that the phrase “effective amount” is not indefinite when read in light of the specification. Thus, *Ex parte Skuballa* should not be relied upon here since there is no indefinite rejection in this appeal to consider.

Additionally, the Examiner finds Applicant's arguments unpersuasive, because CHANG is not required as prior art to disclose the intended use under MPEP § 2122 as discussed in the 2<sup>nd</sup> Argument and CHANG does disclose the “effective amounts” as discussed in the 3<sup>rd</sup> argument.

5<sup>th</sup> Argument:

Applicant argues that CHANG does not enable one skilled in the art, because CHANG fails to disclose the critical amounts of stabilizer.

The Examiner finds this argument unpersuasive, because, as discussed in the 3<sup>rd</sup> Argument, CHANG disclosed similar amount of stabilizers as Applicant to prevent oxidative degradation. Oxidative degradation causes off-flavor odor and discoloration. The Examiner did not find Applicant lacking in enablement; therefore, CHANG is not lacking in enablement.

6<sup>th</sup> Argument:

Applicant argues that TODD requires the presence of a "non-ionic surface active agent" to achieve color stabilization, citing:

" ---the heart of the invention lies in the totally unexpected effect which certain, but not all, emulsifiers have upon the stability of these pigments. As described hereinafter, these emulsifiers are not antioxidants, and indeed may have a slight pro-oxidant effect when added to vegetable oils. Accordingly, the stabilizing effect must be attributed to an unknown mechanism, such as inhibition of electron transfer in the pigment when it quenches singlet oxygen, which then renders it more immune to the attack of oxygen--"

and

"---the stability of annatto, tomato, carrot, marigold, and synthetic carotenoid pigments, when subjected to oxidative and thermal stress, is markedly increased by admixing them with certain emulsifiers, which emulsifiers are not antioxidants but rather affect the stability of the pigments in some other, unknown, manner---"

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Thus, Applicant argues that TODD teaches away from the present invention which does not rely on the presence of surface active agents to achieve color stabilization.

The Examiner finds this argument unpersuasive, because Applicant is reading TODD within a vacuum of a few sentences, which leads to misinterpretation. Applicant fails to recognize that TODD disclosed four fundamental aspects of the invention. TODD states at column 2, lines 46-56 and column 3, lines 11-13, respectively:

“There are four fundamental aspects of this invention:

1. Certain emulsifiers greatly inhibit degradation, especially color degradation.
2. Rosemary and other Labiatae extracts inhibit degradation to an extent much greater than their antioxidant power might suggest.
3. Single and multiple synergism is expressed using the combinations which are possible as a result of this disclosure.
4. Tocopherols and tea extract are also synergistic with combinations of the above.”

and

“The Labiatae extracts in themselves are now found to be more potent preservatives for these carotenoids than their antioxidant properties alone would suggest.”

Thus, TODD does not teach away from the present invention.

7<sup>th</sup> Argument:

Applicant argues that BANK does not discuss color-stabilization; therefore, BANK is not effective as a reference.

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The Examiner finds this argument unpersuasive, because, similar to the 2<sup>nd</sup> argument, the MPEP § 2122 – Discussion of Utility in the Prior Art states, “In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound, but no utility need be disclosed by the reference.” *In re Schoenwald*, 964 F.2d 1122, 22 USPQ2d 1671 (Fed. Cir. 1992). Therefore, the color degradation utility is not required to be disclosed in BANK. Additionally, BANK is a supporting reference to show that the prior art understands citral, a flavoring agent, can undergo oxidative degradation. As discussed above, oxidation degradation causes discoloration and off-flavor odor.

Thus, BANK is effective as a reference.

8<sup>th</sup> Argument:

Applicant argues that BANK does not disclose the amounts of stabilizer to achieve color-stabilization; therefore, BANK is not effective as a reference.

The Examiner finds this argument unpersuasive, because the prior arts disclosed that color degradations and off-flavor odors are caused by oxidation. BANK's composition protects the citral flavor composition from oxidative degradation by adding about 25 – 200 ppm of rosemary extracts (col. 9, Table 1), which is similar to CHANG's 50 – 200 ppm as discussed in the 3<sup>rd</sup> Argument. Applicant disclosed in the Specification to use about 50 – 2000 ppm of rosemary extract (specification, pg. 8). BANK and CHANG disclosed similar range of stabilizers as Applicant to prevent

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oxidative degradation. Thus, BANK does disclose the amounts of stabilizer to achieve such an effect and therefore is effective as a reference.

9<sup>th</sup> Argument:

Applicant argues that there is no suggestion or motivation to combine the three prior arts.

The Examiner finds this argument to be unpersuasive, because as discussed above in the 103(a) rejection. It would have been obvious to the person of ordinary skill in the art at the time the invention was made to incorporate TODD's method of color stabilization into BANK's citral flavor composition and CHANG's composition. The person of ordinary skill in the art would have been motivated to make those modifications, because TODD disclosed that the color and hue of [consumer products such as] tomato paste affects its value (col. 1, line 21-22). Monetary values have always been a large motivation in the business and science world. Additionally, all three prior arts dealt with the same subject matter of using rosemary extracts to inhibit oxidative degradation. The prior art understands that oxidative degradation causes discoloration and off-flavor odor.

The person of ordinary skill in the art would reasonably have expected success, because all three prior art compositions utilized rosemary as the antioxidant to protect the consumer products from oxidative degradation, which triggers color discoloration, unpleasant odor and decreases shelf life of consumer products.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jake M. Vu, PharmD, JD  
Art Unit 1618

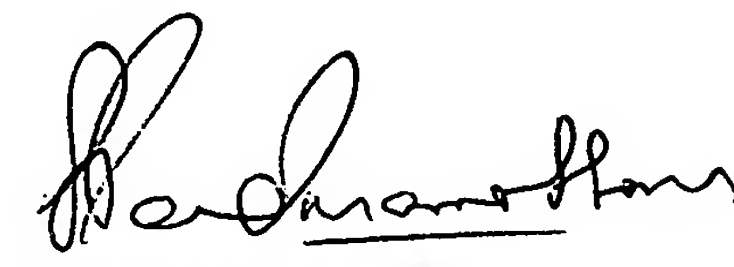


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